

REMARKS

Overview

The Examiner has responded in the prior Office Action as follows: rejected claims 1, 2, and 79-81 under 35 U.S.C. 103(a) as being unpatentable over Fado et al. (U.S. Patent No. 6,067,084) in view of Hochstedler (U.S. Patent No. 6,707,476); rejected claims 10-14, 16-17, 19, 35-38, 40-42 and 60-78 under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (U.S. Patent No. 6,661,437) in view of Hochstedler; rejected claims 3-7 under 35 U.S.C. 103(a) as being unpatentable over Fado in view of Hochstedler and Miller; rejected claim 8 under 35 U.S.C. 103(a) as being unpatentable over Fado in view of Hochstedler and Amezcu et al. (U.S. Patent No. 4,458,331); rejected claim 9 under 35 U.S.C. 103(a) as being unpatentable over Fado in view of Hochstedler and Janik (U.S. Patent No. 5,285,398); rejected claims 15 and 39 under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Hochstedler and Amezcu; and rejected claim 18 under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Hochstedler and Best (U.S. Patent No. 4,569,026).

Applicants hereby amend independent claim 10 in order to clarify the subject matter of their invention. Thus, claims 1-19, 35-42 and 60-81 continue to be pending.

Discussion

The Examiner has rejected all of the previously pending claims under 35 U.S.C. § 103(a) as being unpatentable over the Hochstedler reference in combination with one or both of Fado and Miller, and in some cases with further combination with one of Amezcu, Janik and Best. However, each of the pending claims as rejected includes features and provides functionality not disclosed by any of these references, and thus is allowable over those references.

The pending claims are generally related to using information about a current context of a user of a computing system in order to alter how the user interacts with information being presented in accordance with that context. By providing such user interaction alterations based on the current context of the user, a computing system can dynamically adapt to and optimize the interaction experience of the user based on current conditions. For example, independent computer-readable media claim 1 as previously rejected recites “receive information about a current context of the user from a context awareness component that receives sensed information from multiple sources and that mediates amongst the multiple sources to build a model of the

current context of the user" and "in response to the received information about the current context of the user, alter one or more of the subset of steps that needs to be performed by the user by altering multiple interaction elements that affect interactions with the user for the current step." Similarly, independent method claim 10 as amended recites "receiving information about a modeled current context of the user" and "in response to the received information about the modeled current context of the user, automatically determining one or more of multiple elements to alter regarding interactions with the user and altering the determined elements." Each of the other pending independent claims 19, 35 and 74-80 as previously presented recite similar language regarding receiving current context information for the user and using the received information to alter how the user can interact with information or options being presented.

Conversely, while at least some of the prior art is generally related to presenting information to users about actions for tasks that are to be performed, none of the cited art references appear to receive and use such information about a current context of the user for any purpose, let alone to alter how the user can interact with information being presented in such a manner as to reflect that current context. The Examiner recognized these failings of Fado and Miller, noting that "Fado fails to teach the method further receives information about a current context of the user . . ." and that "Miller fails to teach receiving information about a current context of the user." (Office Action dated December 16, 2004, page 3, ¶ 3, and page 6, ¶ 6.)

However, the Examiner asserts that "Hochstedler teaches a method that further receives information about a current context of the user from a context awareness component that receives sensed information from multiple sources and that mediates amongst the multiple sources to build a model of the current context of the user (col. 1, lines 49-col 2, lines 20)." (Office Action dated December 16, 2004, page 4, ¶ 2.) While Hochstedler is generally directed to the display of information, as well as to modifying information display when a new sensor is added with respect to a medical patient under observation, the Examiner's reliance on Hochstedler to teach or suggest using current context information for the user of a computing system is misplaced. Instead, Hochstedler makes clear that the users of the disclosed patient monitoring system are medical staff, such as doctors and nurses, and are not the patients being monitored. As such, the data being displayed to a doctor user about some other monitored patient is no different from any other source of changing data that is unrelated to the user (e.g., a stock ticker with changing stock information). Applicants can find no suggestion or motivation in Hochstedler that information about a modeled current context of a nurse or doctor is obtained and used to modify the user

interface, and even if such information were available, Hochstedler provides no teaching regarding how such information would be used to adapt the interface for the user.

Therefore, since none of the cited references provide any teaching, suggestion or motivation related to using information about a current context of a user of a computing system in order to alter how the user interacts with information being presented in accordance with that context, each of the pending independent claims 1, 10, 19, 35 and 74-80 are allowable over the references for at least that reason. Furthermore, since the pending dependent claims include the features of those claims from which they depend, they are each thus allowable for at least the same reasons as the independent claims.

Furthermore, various of the pending claims recite additional features and elements that are not taught or suggested by any of the cited references, and thus are allowable over those references based on those additional features as well. For example, independent claim 1 as previously rejected further recites "when input data is not received from the user for the current step and information received from the context awareness component indicates that the user is currently distracted, further altering one or more of the interaction elements for the current step in such a manner as to be less cognitively burdensome for the user." As none of the cited prior art is relevant to using information about the context of the user in any manner, they clearly fail to provide any teaching or suggestion regarding altering the interaction elements so as to be less cognitively burdensome for the user when the user is determined to currently be distracted.

While the Examiner has asserted that Hochstedler teaches this claim element, the section of Hochstedler cited by the Examiner appears unrelated to the recited claim language. In particular, Applicants have included the cited portion of Hochstedler below for reference purposes, and can find no mention of receiving modeled context information for the user indicating that the user is currently distracted or of altering interaction elements to be less cognitively burdensome. Thus, independent claim 1 and its dependents appear to further be allowable over the cited references for this reason as well. If the Examiner maintains this rejection, Applicants request that the Examiner identify with specificity what aspects of Hochstedler that the Examiner believes to be related to Applicants' claim language.

As shown in FIG. 5, the action tab 83 provides mechanisms to permit a user to select one of four action or option buttons 95, 96, 97, and 98. (The options correspond to the Options 1-4 defined above.) If a button besides the "do nothing" button 95 is selected, then the user may specify the layouts that may be switched to. The system 10 displays the list of layouts with types that match the selected option in an allowed layouts window 100. The user may then choose from the list of displayed layouts

in the allowed layouts window 100 by selecting the desired layouts. If the user does not select at least one layout after selecting buttons 96, 97 or 98, the system 10 automatically generates a layout set using one of the specified algorithms corresponding to the relevant action or event. When the user configures a group-wide event action, an extra option is available: a use group-wide action button (not shown) is displayed by the system. Hochstedler, 6:32-49.

Various of the pending dependent claims also recite additional features lacking in the cited references, and are thus allowable on the basis of those features as well, although those additional features are not enumerated here for the sake of brevity.

Conclusion

In light of the above remarks, Applicants respectfully submit that all of the pending claims are allowable. Applicants therefore respectfully request the Examiner to reconsider this application and timely allow all pending claims. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 694-4815.

Respectfully submitted,
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